Please amend the claims as follows:

1-58. (Cancelled)

59. (Previously presented) A method for determining the concentration of a first, medically significant component of a biological fluid or a control, the biological fluid or control including a second component which affects the determination of the concentration of the first component, the method including performing a first measurement on the biological fluid or control which first measurement varies with both the concentration of the first component and at least one of the presence and concentration of the second component, performing a second measurement on the biological fluid or control which second measurement has the form of a time-varying function $i_2(t)$, where t is time, t < some arbitrarily established time, $i_2(t)$ varying primarily only with the at least one of the presence and concentration of the second component to develop an indication of the at least one of the presence and concentration of the second component, and removing an amount representative of the indicated presence or concentration of the second component from the concentration of the first component indicated by the first measurement.

60. (Previously presented) The method of claim 59 wherein the biological fluid is blood or a blood fraction.

61. (Previously presented) The method of claim 60 wherein the first component is glucose.

62. (Previously presented) The method of claim 61 wherein the second component is blood cells.

63. (Previously presented) The method of claim 62 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

64. (Previously presented) The method of claim 63 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

65. (Previously presented) The method of claim 59 further including contacting the biological fluid or control with a reactant before performing the first measurement.

66. (Previously presented) The method of claim 65 wherein the biological fluid is blood or a blood fraction.

67. (Previously presented) The method of claim 66 wherein the first component is glucose.

68. (Previously presented) The method of claim 67 wherein the second component is blood cells.

69. (Previously presented) The method of claim 68 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

70. (Previously presented) The method of claim 69 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

71. (Previously presented) The method of claim 65 wherein the first and second measurements exhibit an interdependence between the concentration of the first component and the concentration of the second component.

72. (Previously presented) The method of claim 71 wherein the biological fluid is blood or a blood fraction.

73. (Previously presented) The method of claim 72 wherein the first component is glucose.

74. (Previously presented) The method of claim 73 wherein the second component is blood cells.

75. (Previously presented) The method of claim 74 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

76. (Previously presented) The method of claim 75 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

77. (Previously presented) The method of claim 59 wherein the first and second measurements exhibit an interdependence between the concentration of the first component and the concentration of the second component.

78. (Previously presented) The method of claim 77 wherein the biological fluid is blood or a blood fraction.

79. (Previously presented) The method of claim 78 wherein the first component is glucose.

80. (Previously presented) The method of claim 79 wherein the second component is blood cells.

81. (Previously presented) The method of claim 80 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

82. (Previously presented) The method of claim 81 wherein the first measurement is of a hematocrit-sensitive measure of the glucose concentration.

83. (Previously presented) The method of claim 59 wherein performing a first measurement on the biological fluid or control which first measurement varies with both the concentration of the first component and at least one of the presence and concentration of the second component includes performing measurements of a time-varying

function $i_1(t)$ having the general form

$$i_1(t) = M/\text{sqrt}(t) + B$$

where t is time from initiating the measurement, M is the slope of a graph of the function and B is a value the function approaches as t becomes very large.

84. (Currently amended) Apparatus for determining the concentration of a first, medically significant component of a biological fluid or a control, the biological fluid or control including a second component which affects the determination of the concentration of the first component, the apparatus including a device for performing a first measurement on the biological fluid or control which first measurement varies with both the concentration of the first component and at least one of the presence and concentration of the second component, the device further being for performing a second measurement of a time-varying function $i_2(t)$ of the biological fluid or control, where t is time, $t <$ some arbitrarily established time, which second measurement varies primarily only with the at least one of the presence and concentration of the second component to develop an indication of the at least one of the presence and concentration of the second component, ~~and~~ the device further being for removing an amount representative of the indicated presence or concentration of the second component from the concentration of the first component indicated by the first measurement.

85. (Currently amended) The apparatus of claim 84, the device being a device for determining the concentration of a first, medically significant component of blood, a blood fraction or a control.

86. (Currently amended) The apparatus of claim 85, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

87. (Currently amended) The apparatus of claim 86, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

88. (Currently amended) The apparatus of claim 87, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

89. (Currently amended) The apparatus of claim 88, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose

concentration.

90. (Previously presented) The apparatus of claim 84 further including a reactant for contacting the biological fluid or control before performing the first measurement.

91. (Currently amended) The apparatus of claim 90, the device being a device for determining the concentration of a first, medically significant component of blood, a blood fraction or a control.

92. (Currently amended) The apparatus of claim 91, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

93. (Currently amended) The apparatus of claim 92, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

94. (Currently amended) The apparatus of claim 93, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

95. (Currently amended) The apparatus of claim 94, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

96. (Currently amended) The apparatus of claim 90, the device being a device for performing first and second measurements which exhibit an interdependence between the concentration of the first component and the concentration of the second component.

97. (Currently amended) The apparatus of claim 96, the device being a device for determining the concentration of a first, medically significant component of blood, a blood fraction or a control.

98. (Currently amended) The apparatus of claim 97, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

99. (Currently amended) The apparatus of claim 98, the device being a device for performing the second measurement on the blood, blood fraction or control which

second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

100. (Currently amended) The apparatus of claim 99, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

101. (Currently amended) The apparatus of claim 100, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

102. (Currently amended) The apparatus of claim 84, the device being a device for performing first and second measurements which exhibit an interdependence between the concentration of the first component and the concentration of the second component.

103. (Currently amended) The apparatus of claim 102, the device being a device for determining the concentration of a first, medically significant component of blood, a blood fraction or a control.

104. (Currently amended) The apparatus of claim 103, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

105. (Currently amended) The apparatus of claim 104, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

106. (Currently amended) The apparatus of claim 105, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

107. (Currently amended) The apparatus of claim 106, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

108. (Previously presented) The apparatus of claim 84 wherein the device for performing a first measurement on the biological fluid or control which first measurement varies with both the concentration of the first component and at least one of the presence and concentration of the second component includes a device for performing measurements of a time-varying function $i_1(t)$ having the general form

$$i_1(t) = M/sqrt(t) + B$$

where t is time from initiating the measurement, M is the slope of a graph of the function and B is a value the function approaches as t becomes very large.

109. (Previously presented) A method for determining the concentration of a first, medically significant component of a biological fluid or a control, the biological fluid or control including a second component which affects the determination of the concentration of the first component, the method including performing a first measurement of a time-varying function $i_1(t)$ of the biological fluid or control, $i_1(t)$ varying with both the concentration of the first component and at least one of the presence and concentration of the second component, $i_1(t)$ having the general form

$$i_1(t) = M/sqrt(t) + B$$

where t is time from initiating the measurement, M is the slope of a graph of the function and B is a value the function approaches as t becomes very large, performing a second measurement on the biological fluid or control which second measurement also varies with the at least one of the presence and concentration of the second component to develop an indication of the at least one of the presence and concentration of the second component, and removing an amount representative of the indicated presence or concentration of the second component from the concentration of the first component indicated by the first measurement.

110. (Previously presented) The method of claim 109 wherein the biological fluid is blood or a blood fraction.

111. (Previously presented) The method of claim 110 wherein the first component is glucose.

112. (Previously presented) The method of claim 111 wherein the second component is blood cells.

113. (Previously presented) The method of claim 112 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

114. (Previously presented) The method of claim 113 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

115. (Previously presented) The method of claim 109 further including contacting the biological fluid or control with a reactant before performing the first measurement.

116. (Previously presented) The method of claim 115 wherein the

biological fluid is blood or a blood fraction.

117. (Previously presented) The method of claim 116 wherein the first component is glucose.

118. (Previously presented) The method of claim 117 wherein the second component is blood cells.

119. (Previously presented) The method of claim 118 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

120. (Previously presented) The method of claim 119 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

121. (Previously presented) The method of claim 115 wherein the first and second measurements exhibit an interdependence between the concentration of the first component and the concentration of the second component.

122. (Previously presented) The method of claim 121 wherein the biological fluid is blood or a blood fraction.

123. (Previously presented) The method of claim 122 wherein the first component is glucose.

124. (Previously presented) The method of claim 123 wherein the second component is blood cells.

125. (Previously presented) The method of claim 124 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

126. (Previously presented) The method of claim 125 wherein the first measurement is of a hematocrit-sensitive measure of glucose concentration.

127. (Previously presented) The method of claim 109 wherein the first and second measurements exhibit an interdependence between the concentration of the first component and the concentration of the second component.

128. (Previously presented) The method of claim 127 wherein the biological fluid is blood or a blood fraction.

129. (Previously presented) The method of claim 128 wherein the first component is glucose.

130. (Previously presented) The method of claim 129 wherein the second component is blood cells.

131. (Previously presented) The method of claim 130 wherein the second measurement is of a largely glucose-insensitive measure of hematocrit.

132. (Previously presented) The method of claim 131 wherein the

first measurement is of a hematocrit-sensitive measure of the glucose concentration.

133. (Previously presented) Apparatus for determining the concentration of a first, medically significant component of a biological fluid or a control, the biological fluid or control including a second component which affects the determination of the concentration of the first component, the apparatus including a device for performing a first measurement of a time-varying function $i_1(t)$ of the biological fluid or control, $i_1(t)$ varying with both the concentration of the first component and at least one of the presence and concentration of the second component, $i_1(t)$ having the general form

$$i_1(t) = M/\mathrm{sqrt}(t) + B$$

where t is time from initiating the measurement, M is the slope of a graph of the function and B is a value the function approaches as t becomes very large, performing a second measurement on the biological fluid or control which second measurement varies primarily only with the at least one of the presence and concentration of the second component to develop an indication of the at least one of the presence and concentration of the second component, and removing an amount representative of the indicated presence or concentration of the second component from the concentration of the first component indicated by the first measurement.

134. (Currently amended) The apparatus of claim 133, the device being a device for determining the concentration of a first, medically significant component of blood, a blood fraction or a control.

135. (Currently amended) The apparatus of claim 134, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

136. (Currently amended) The apparatus of claim 135, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

137. (Currently amended) The apparatus of claim 136, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

138. (Currently amended) The apparatus of claim 137, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose

concentration.

139. (Previously presented) The apparatus of claim 133 further including a reactant for contacting the biological fluid or control before performing the first measurement.

140. (Currently amended) The apparatus of claim 139, the device being a device for determining the concentration of a first, medically significant component of blood, a blood fraction or a control.

141. (Currently amended) The apparatus of claim 140, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

142. (Currently amended) The apparatus of claim 141, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

143. (Currently amended) The apparatus of claim 142, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

144. (Currently amended) The apparatus of claim 143, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

145. (Currently amended) The apparatus of claim 139, the device being a device for performing first and second measurements which exhibit an interdependence between the concentration of the first component and the concentration of the second component.

146. (Currently amended) The apparatus of claim 145, the device being a device for determining the concentration of a first, medically significant component of blood, a blood fraction or a control.

147. (Currently amended) The apparatus of claim 146, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

148. (Currently amended) The apparatus of claim 147, the device being a device for performing the second measurement on the blood, blood fraction or control which

second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

149. (Currently amended) The apparatus of claim 148, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

150. (Currently amended) The apparatus of claim 149, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.

151. (Currently amended) The apparatus of claim ~~135~~ 133, the device being a device for performing first and second measurements which exhibit an interdependence between the concentration of the first component and the concentration of the second component.

152. (Currently amended) The apparatus of claim 151, the device being a device for determining the concentration of a first, medically significant component of blood, a blood fraction or a control.

153. (Currently amended) The apparatus of claim 152, the device being a device for performing the first measurement on the blood, blood fraction or control which first measurement varies with both the concentration of glucose and the concentration of blood cells in blood, a blood fraction or a control.

154. (Currently amended) The apparatus of claim 153, the device being a device for performing the second measurement on the blood, blood fraction or control which second measurement varies primarily only with the concentration of blood cells in the blood, blood fraction or control.

155. (Currently amended) The apparatus of claim 154, the device being a device for performing the second measurement of a largely glucose-insensitive measure of hematocrit.

156. (Currently amended) The apparatus of claim 155, the device being a device for performing the first measurement of a hematocrit-sensitive measure of glucose concentration.